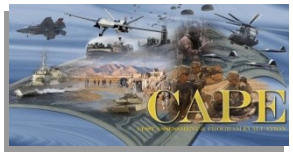
The Analytics of Tough Choices

Christine Fox, Director

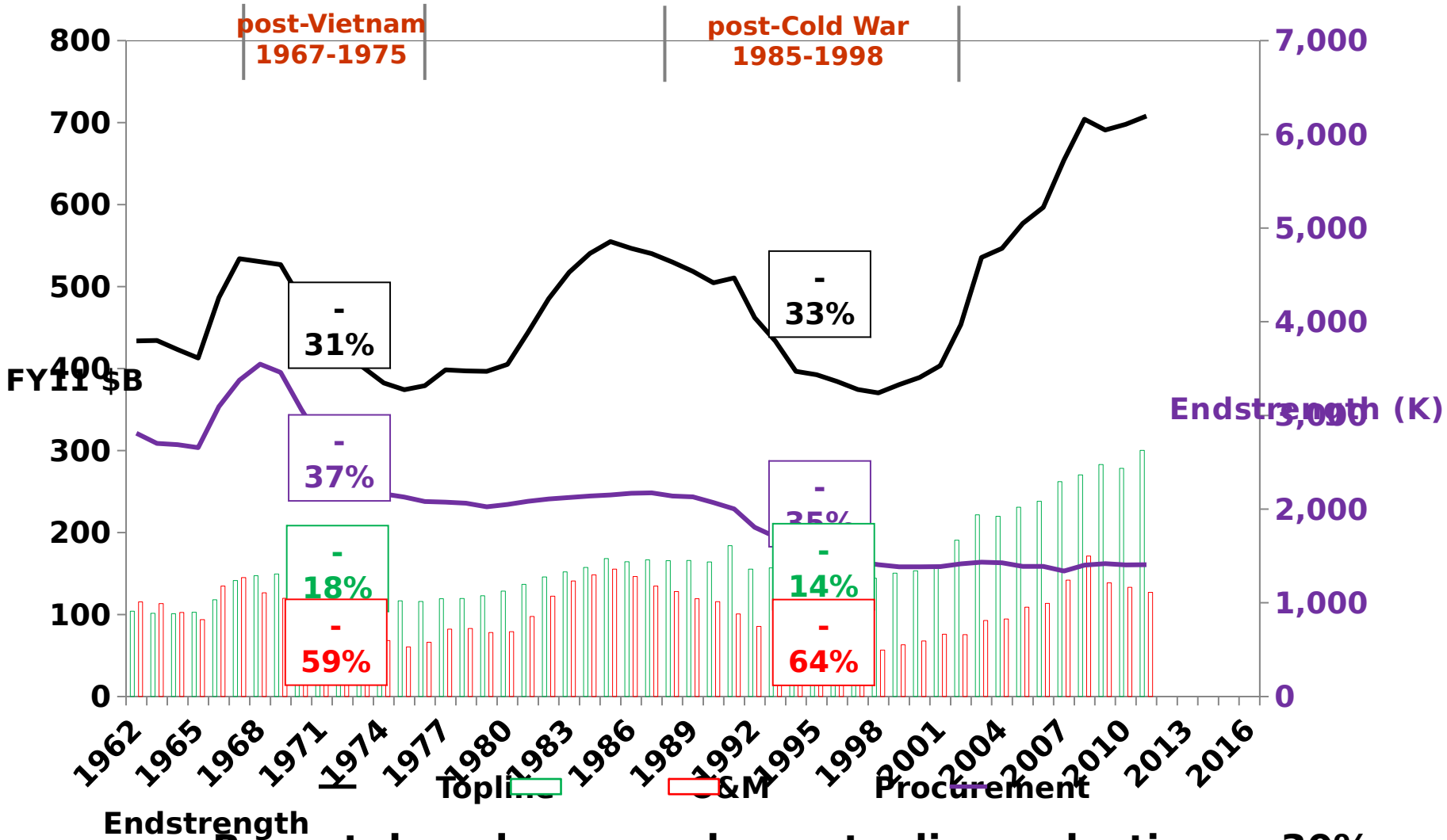
12 April 2011



Overview

- Historical view
- Future challenges
  - Acquisition professionals opportunities
  - CAPE's role and responsibilities
- Challenges for us all

DoD Historical Data



- **Recent drawdowns each saw topline reductions ~30%**
- **Acquisition cut disproportionately in both**

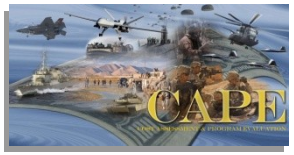
Consequences of Previous Drawdowns

Post-Vietnam

- "Hollow force"
  - Readiness measures bottomed out in late 1970s
  - Reduced public support, adjustment to all volunteer force, and resulting lower recruit quality were contributing factors
- Some attempt to modernize rather than fully fund training, maintenance, and spares to pace the Soviet threat

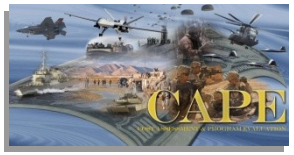
Post-Cold War

- Problems with readiness occurred in mid-90s
- Major capital equipment procured below steady state replacement rates
  - Took advantage of Reagan build-up
- Significant consolidation in the industrial base



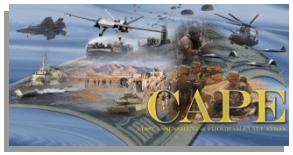
Where we are today

- Systems need replacing
- Spectrum of threats
  - Large, conventional nation/state actors
  - Smaller but very dangerous terrorist cells.
- Historic deficits
- *We're still at war……*



The Secretary is determined

- NOT to recreate the readiness problems that characterized previous downsizing
- To make sure the Department is healthy enough to protect against and deter the continuum of very real threats that we currently face
- To find efficiency savings to reduce Department overhead costs
  - Protect force structure and procurement



Our challenges

- What's good enough?
- What should we give up? When?
- How do we invest in S&T?
- How do we get better prices?
- How do we incentivize our workforce to participate in a *Culture of Savings*?

What's good enough?

- Risk
  - Requirements risk
  - Technology risk
  - Cost risk

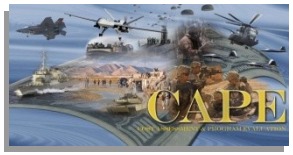
- New initiatives to inform the risk debates
  - Front End Assessments
    - Example: Long Range Strike Family of Systems
      - Considered the entire portfolio of conventional deep-strike capabilities
      - **Focused on proven technologies to ensure that we deliver on time and on budget**
  - WSARA
    - ICE/AOA at Milestone A

What should we give up?

- Recent SECDEF decisions:
  - Truncate F-22
  - Truncate C-17
  - Terminate Future Combat System
  - Terminate the Expeditionary Fighting Vehicle
  - JSF “extra engine” a veto issue
  - JSF STOVL on “probation”

- How do we incentivize the community to identify these opportunities? How do we learn to ignore sunk costs?

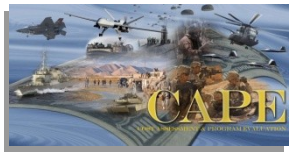
- CAPE’s role:
  - Provide an assessment of the complete range of options
  - Distinguish critically important capability from exquisite capability



How do we invest in S&T?

- Science and Technology investment is a SECDEF and Administration priority
- Big payoffs—the “game changers”—come from these investments.
- We need “game changers” in
  - Technological advancement
    - Cyber
  - Savings
    - Energy
- How do we know where to invest? How do we protect our design workforce?
  - One of this year’s Front End Assessments

PMs play a lead role in identifying S&T “game changers”



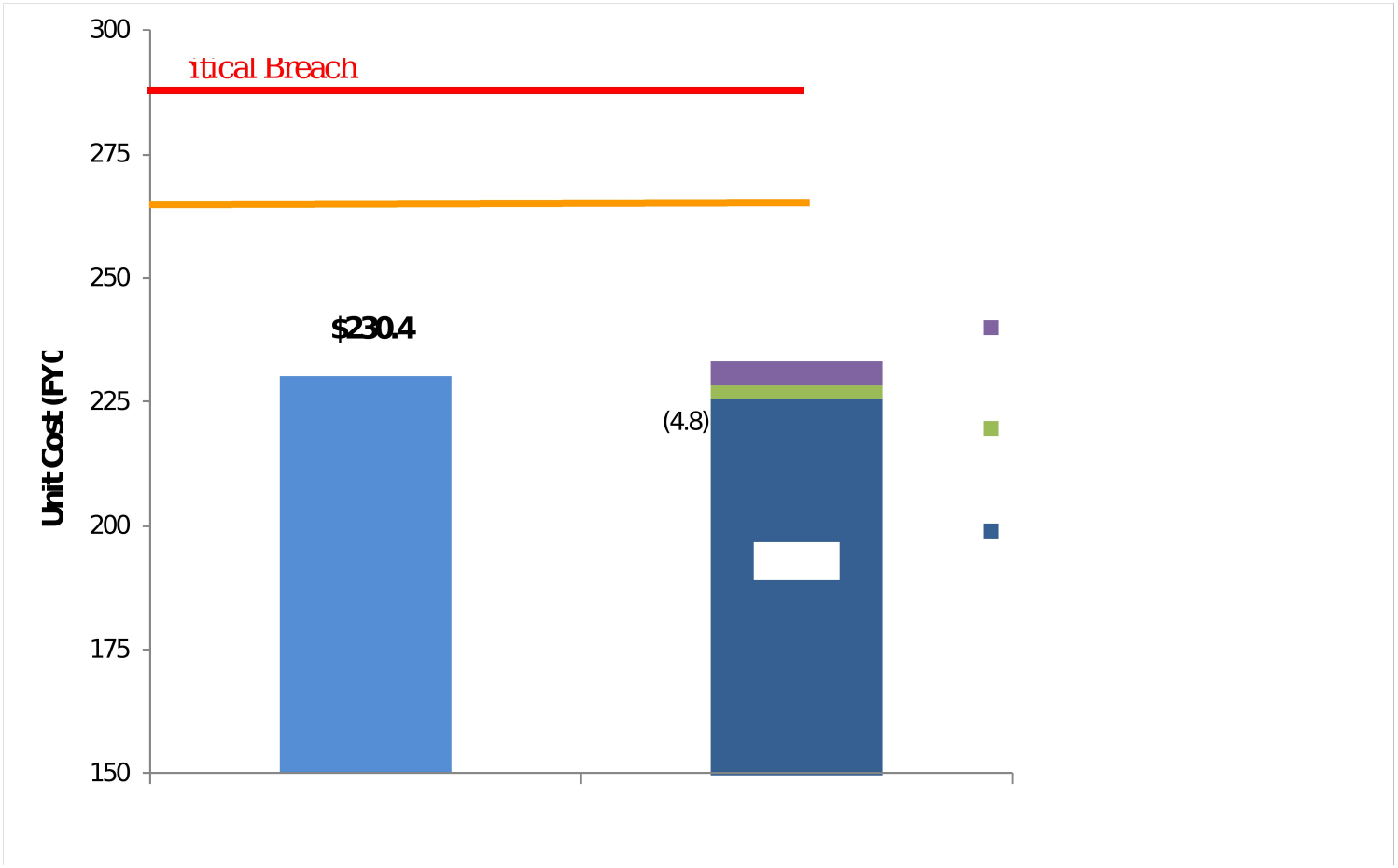
How do we get better prices?

- Teamwork key to successful programs:
  - Program managers; Acquisition executives; Industry; CAPE
  - Enables understanding of challenges, incentives, constraints
  - Critical to successfully working through difficult periods
  - Understanding leads to win-win solutions and better value for the Govt

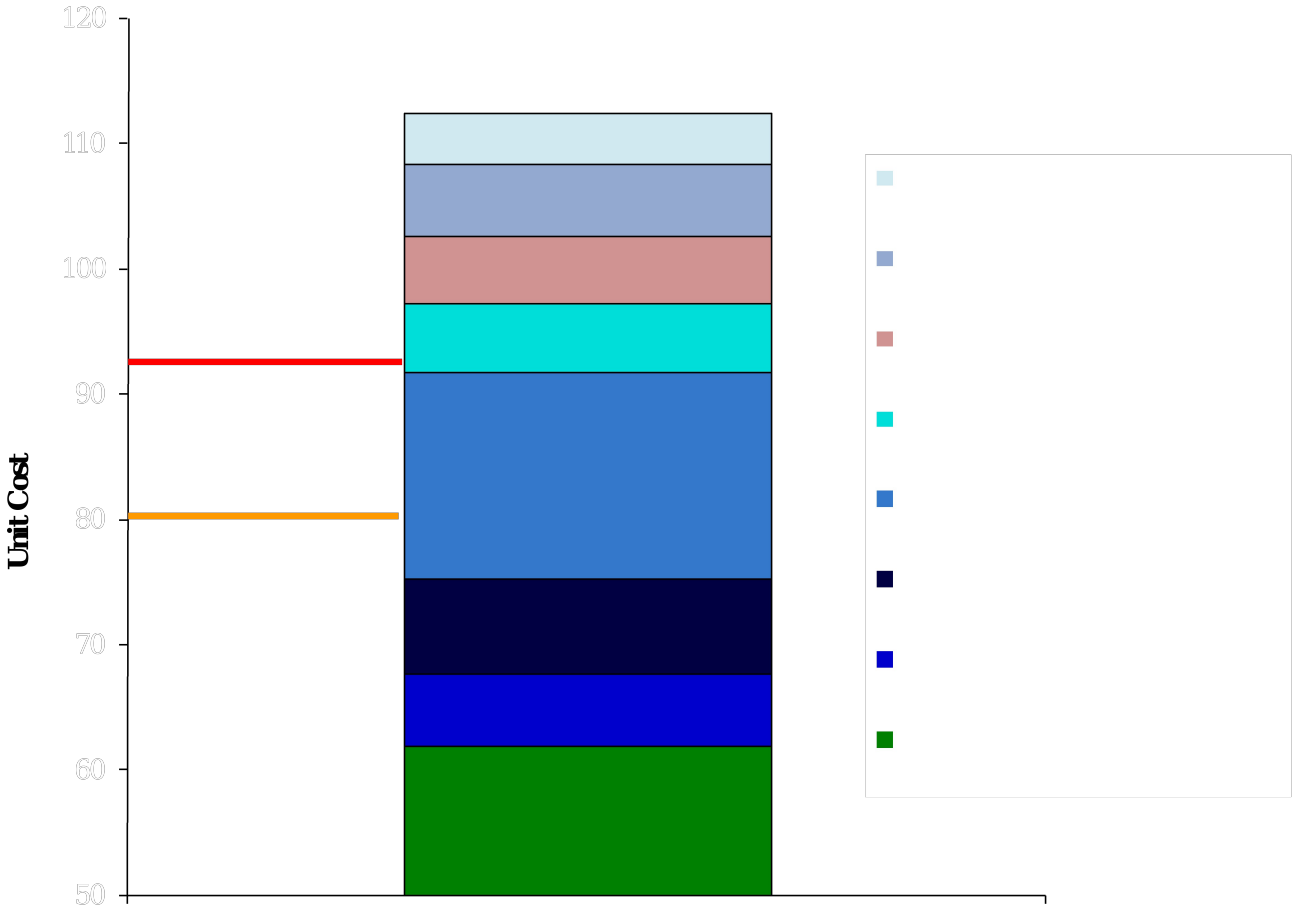
- Example: Successful Development Program
  - Realistic cost estimate baselined at MS B
  - Realistic development schedule baselined at MS B
  - Experienced management team, continuity in key positions
  - Limited SDD phase capabilities to proven technologies

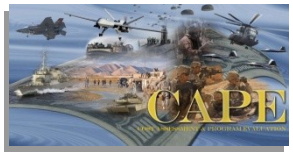
- CAPE analysis can enable strong programs and procurement savings

Growth in PAUC Over 7-Year SDD Phase



Growth in PAUC for Critical N-M Breach





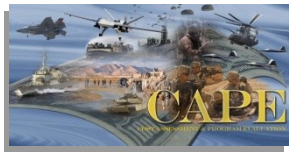
Multi-year Procurement Certifications

- CAPE is required in statute to assess savings from use of multi-year contracting strategy.
  - Two programs evaluated to date: F/A-18 E/F and H-60
  - CAPE compares multi-year vs. annual strategies to assess savings
  - Certifications sent to Congress

- Multi-year contracting strategies can reduce costs by enabling more efficient use of contractor resources including:
  - improved economic order quantities;
  - potential buyouts of parts and materials;
  - concurrent Foreign Military Sales;
  - acceleration of production; and
  - enhanced manufacturing flow.

- Assessments of savings are difficult: program historical costs typically reflect a single contracting strategy

CAPE Identified Opportunities for Savings in Both Cases

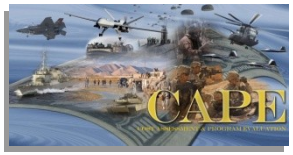


Changing the Culture

- Program manager incentives
  - How do we best incentivize program ownership?
    - What are the current disincentives?
  - What are the disincentives to raising concerns about a program?
    - What would it take to incentivize this behavior?

- What tools do you need for effective program management?
  - Better cost visibility?
  - Better understanding of how different people assess risk and rewards?
  - More ability to question assumptions?
  - Ability to protect against requirements growth?
  - Other??

You have ***the*** critical role in achieving acquisition success.



Summary

- We are entering a period of tough budget pressures

- At the same time
  - We are still at war
  - We face a complex spectrum of threats
  - We need to recapitalize our force

You are on the front lines of the procurement challenges and ***opportunities***.